



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,040	11/13/2003	Kamal Bhattacharya	YOR920030445 (00280754AA)	7099
30743 7590 10/15/2008 WHITHAM, CURTIS & CHRISTOFFERSON & COOK, P.C. 11491 SUNSET HILLS ROAD SUITE 340 RESTON, VA 20190				
EXAMINER CHUMPTIAZ, BOB R				
ART UNIT 3629		PAPER NUMBER		
MAIL DATE 10/15/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/706,040

Applicant(s)

BHATTACHARYA ET AL.

Examiner

BOB CHUMPITAZ

Art Unit

3629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/24/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

The following is a Final Office action in response to communication received July 31, 2008. Preliminary amendment filed on March 19, 2008 canceled claims 1-10 and added claim 11. Claim 11 is currently amended. Therefore, claim 11 is pending and addressed below.

Response to Amendments

Applicant's amendment to claim 11 is sufficient to overcome the 35 U.S.C 112, second paragraph rejection set forth in the previous office action. Applicant's amendment is sufficient to overcome claim objections as well.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roach et al. 5,310,997 (hereinafter referred as Roach).

As per claim 11, Roach discloses a retail store replenishment system, comprising:

one or more retail stores equipped with means for tracking point of sales events and quantities of in-store stock (col. 1, lines 5-9 apparatus and process for integrating the order and delivery of retail merchandise and particularly to an automated system for

integrating point of sale and warehouse processing functions; see also, col. 3, lines 25-33 retail store 200 wherein system 10 integrates point of sale and warehouse processing functions; see also col. 3, line 59 –col. 4, line 4 plurality of stores; see also, col. 4, lines 35-68 (DCS) distribution control system that tracks merchandise and directs workflow in the warehouse), and a means for receiving notices of advanced shipments of stock (col. 1, lines 47-57 interface programs to provide efficient merchandise selection and delivery process; see also, col. 4, line 54 – col. 5, line 5 processor includes an interface for translating the various applications to and from the controller, and several modules that work together to provide tracking control as well as processing in the form of receiving, picking, and shipping);

at least one distribution center with means for tracking in-distribution center stock (col. 4 lines 35-68 (DCS) distribution center system wherein the control system tracks and directs workflow in the warehouse; see also, Figs. 1, 6 and associated text), means for ordering stock from suppliers (col. 1, lines 30-33 system 10 integrates point of sale used in the selection, order and delivery of merchandise; see also, col. 4 lines 54-61 computers function to process orders for merchandise from customers; see also, col. 9, line 61 - col. 10, line 30 computer order interface, Figs. 1, 2 item 18; see also, col. 20, lines 49-60 system 10 used for performing shelf count or restocking functions), and means for sending notices of advanced shipments of stock to said one or more retail stores (col. 2, lines 9-18 point of sales system sends information to warehouse facility where the customer merchandise wait is minimized; see also, col. 10, lines 3-6 the computer

interface sends the DCS customer pick up orders, delayed customer pick up orders, home delivery orders, installation orders and UPS delivery orders; see also, Fig. 1-2, item 18);

at least one autonomous retail business process robot associated with each of said one or more retail stores (col. 2, lines 18-43 apparatus includes a main store processor having a database for storing customer identification information and merchandise information and which processes sale transaction records for customer; see also, col. 3, line 59 – col. 4, line 4 plurality of stores),

said at least one autonomous retail business process robot receiving input from said means for tracking point of sales events and quantities of in-store stock and from said means for receiving notices of advanced shipments of stock (col. 2, lines 18-53 a point of sale system coupled to processor has a controller and at least one pen-based computer in communication with the controller via RF transmissions; see also, col. 3 lines 25-43 system includes a point of sales controller; see also, col. 4, line 45 – col. 5, line 5 store processor 14 includes the (DCS) distribution center system warehouse inventory system; see also, col. 9, line 61 - col. 10, line 30 computer order interface; see Figs. 1-2, item 18),

said at least one autonomous retail business process robot determining a potential out-of-stock threat based on said input and providing notification of said potential out-of-stock threat (col. 7, lines 1-65 the system enables the flow of information in real time between the point of sale (POS) controller, the main store processor, and the sales transaction computers, where the data flowing from the main store to the POS controller includes

information relating to price changes, merchandise item file changes, inventory file changes and master membership file updates; see also, col. 9, lines 48-59 pen-based sales transaction computers 18 used to refer item data such as stock availability; see also, col. 10, lines 60-64 the checkout register is able to access item data from the controller including stock availability; see also, col. 12, lines 17-34 computer 18 prompts a screen on the computer of suggested products comparable to the unavailable merchandise);

Roach discloses the system to perform the claimed steps, as outlined above, and acknowledges that the use of computer-based automation systems is old and well known in the art to reduce the cost and increase the efficiency of handling retail customer transactions (col. 1, lines 28-30). However, Roach fails to explicitly disclose the use of an autonomous retail system. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the order and delivery system of Roach to be autonomous, since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

at least one autonomous distribution center business process robot associated with each of said at least one distribution center (col. 4, line 45 – col. 5, line 5 store processor 14 includes the (DCS) distribution center system warehouse inventory system, the DCS is a real time distribution control system which tracks merchandise and directs workflow in the warehouse; see Fig. 1 and associated text; see also, col. 16, lines 43-45 function

directs in real time the activities associated with transferring goods from one area in the distribution center to another),

said at least one autonomous distribution center business process robot controlling execution of an updatable execution plan (col. 7, lines 10-35 system 10 enables flow of information between point of sales controller 12, the main store processor 14 and sales transaction computers 18, data flowing from the controller to the main store processor includes information relating to transaction records and updates to delivery schedules, see Fig. 1 and associated text; see also, col. 2, lines 44-52 automated system are provided to assist the efficient operation of the facility and also included is a system to project labor schedules based on sales history and to produce payroll information on a scheduled basis. Examiner considers the function of projecting a task as taught by Roach to have the capabilities of also providing functions of creating an updatable execution plan when changes occur); and

at least one autonomous business process robot which communicates with each of said at least one autonomous retail business process robot and said at least one autonomous distribution center business process robot (col. 3, line 44 – col. 4, line 4 system 48 located at a central management facility communicates with plurality of stores each having system 10, see Fig. 1 & 2 and associated text),

said at least one autonomous business process robot manages distributions processes associated with stock distribution among said one or more retail stores and said at least

one distribution center in a manner which automatically adapts distributions process to changing business conditions (col. 4, lines 32 – 69 distribution center system; see also, col. 7 lines 1-65, merchandising system 56 order and price change information, the system enables the flow of information in real time between the point of sale (POS) controller, the main store processor, and the sales transaction computers, where the data flowing from the main store to the POS controller includes information relating to price changes, merchandise item file changes, inventory file changes and master membership file updates; see also, col. 9, line 62 - col. 10, line 30 DCS system),

said at least one autonomous business process robot including a data source containing quantified business goals, an execution module that governs execution of the distribution process, and a managerial module that monitors process performance and modifies business processes to achieve the business goals (col. 2, lines 18-43 apparatus includes a main store processor having a database for storing customer identification information and merchandise information and which processes sale transaction records for customer; see also, col. 4, lines 5-21 store management application that runs on controller 64; see also, col. 6, lines 15-24 management program; see also, col. 16, lines 7-13 inventory management and distribution system 600, see Fig. 6 and associated text; see also, claim 1: database for storing program instructions),

said at least one autonomous business process robot receives notification of said potential out-of-stock threat from at least one autonomous retail business process robot associated with at least ~~on~~ one retail store, creates an updated execution plan based on said notification and said business goals, and provides said updated execution plan to said at

least one autonomous distribution center business process robot (col. 2, lines 44-52 automated system are provided to assist the efficient operation of the facility and also included is a system to project labor schedules based on sales history and to produce payroll information on a scheduled basis; see also, col. 4, line 54 – col. 5, line 5 processor includes an interface for translating the various applications to and from the controller, and several modules that work together to provide tracking control as well as processing in the form of receiving, picking, and shipping; see also, col. 6, lines 44-53 Tandy PC used to perform installation and delivery scheduling functions, scheduling PC's; see also, col. 9, lines 48-59 pen-based sales transaction computers 18 used to refer item data such as stock availability; see also, col. 12, lines 17-34 computer 18 prompts a screen on the computer of suggested products comparable to the unavailable merchandise; see also col. 17, lines 27-34 management report function. Examiner considers the function of projecting a task as taught by Roach to have the capabilities of also providing functions of creating an updatable execution plan when changes occur).

Response to Arguments

Applicant's arguments filed 6/24/2008 have been fully considered but they are not persuasive. In the remarks, Applicant argues that:

- (1) Roach does not disclose a retail store replenishment system that is autonomic in nature, having the ability to function independently without human involvement.
- (2) Roach's invention fails to account for "changes due to changing business conditions or changing business goals [to] be managed by the system itself".
- (3) Roach's invention, illustrated in Figures 1 and 2, are unrelated to the Applicant's autonomic replenishment process.
- (4) Roach's invention fails to incorporate a number of features incorporated into Applicant's invention. These features include, but are not limited to, autonomously creating and updated execution plan based on notification and business goals, autonomously modifying business process to achieve business goals, and automatically adapting distributions process to changing business conditions.
- (5) Roach's system fails to remove human involvement and does not have any mechanism to autonomously create an updated execution plan.
- (6) Roach's system fails to autonomously modify itself to achieve business goals.
- (7) Roach's system fails to automatically adapt the distributions process to changing business conditions.

In response to argument (1), Examiner respectfully disagrees. Roach discloses an apparatus and process for integrating the order and delivery of retail merchandise and particularly to an automated system for integrating point of sale and warehouse processing functions (col. 1, lines 5-9). In addition Roach discloses wherein automated systems area also provided to assist efficient operation of the facility (col. 2, lines 18-52). Also, please note that nowhere in claim 11 does it state where the retail store replenishment system has the ability to function independently without human involvement. Bhattacharya et al. discloses in the specification “to create a truly adaptive system, which is self-managing **to limit the manual changes to a minimum** the system need to consist of autonomic solution components”. “To limit the manual changes to a minimum”, implies that human involvement is still considered.

In response to argument (2), Examiner respectfully disagrees. Roach discloses a system that enables the flow of information in real time between the point of sale (POS) controller, the main store processor, and the sales transaction computers, where the data flowing from the main store to the POS controller includes information relating to price changes, merchandise item file changes, inventory file changes and master membership file updates (col. 7, lines 1-65). In addition Roach discloses an inventory management function which enables the system to capture inventory adjustments based on the cycle count inventory and changed item status (col. 17, lines 28-34).

In response to argument (3), Examiner respectfully disagrees. It has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, be reasonably pertinent to the particular problem with which the applicant was concerned, in

order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Roach's teachings are directed to an apparatus and process for integrating the order and delivery of retail merchandise and particularly to an automated system for integrating point of sale and warehouse processing functions in the selection, order and delivery of merchandise. The current application is also directed to a self-adapting, autonomous business processes that have capabilities to adapt themselves to changes in the business environment. Therefore, the prior art and the current invention are directed to substantially the same problem and thus is analogous prior art.

In response to argument (4), Examiner respectfully disagrees. Roach discloses a processor that includes an interface for translating the various applications to and from the controller, and several modules that work together to provide tracking control as well as processing in the form of receiving, picking, and shipping (col. 4, line 54 – col. 5, line 5). In addition, Roach disclose a store management application (col. 4, lines 5-21), and a management program (col. 6, lines 15-24), and an inventory management and distribution system (col. 16, lines 7-13).

In response to argument (5), Examiner respectfully disagrees. Roach discloses wherein known computer-based automation systems have reduced the cost and increased the efficiency of handling retail customer transactions (col. 1, lines 28-30). In addition, Roach discloses wherein automated systems are also provided to assist the efficient operation of the facility operation of the facility and which the system is connected to a

computer for facilitating communication of information to the point where it is required (col. 2, lines 44-53).

In response to argument (6), Examiner respectfully disagrees. Roach discloses wherein automated systems are provided to assist the efficient operation of the facility and also included is a system to project labor schedules based on sales history and to produce payroll information on a scheduled basis (col. 2, lines 44-52). In addition Roach discloses wherein although illustrative embodiments of the invention have been shown and described, a latitude of modification, change and substitutions is intended in the foregoing disclosure, and in certain instances some features of the invention will be employed without a corresponding use of other features (col. 20, lines 61-68). Examiner considers the automated system which assists the operation of the facility to contain the capability to automatically assist the facility in achieving a business aim in order to improve service to the customer or to improve the communication flow of information.

In response to argument (7), Examiner respectfully disagrees. Roach discloses wherein the distribution center system (DCS) is a real time distribution control system. The DCS residing in the processor includes several modules that work together to provide tracking control as well as processing functions. The processor interfaces with the controller and the merchandising system so that the applications, including purchase order and customer order application, have access to the latest data (col. 4, lines 45-68). The Examiner considers the DCS to contain the capability to adapt in real time due to a change of a business process. In addition, Roach teaches a two way interface between the DCS application and the point of sale (POS) controller, wherein the DCS relies on the

controller to provide particular business process information and wherein the POS controller relies on the DCS application to provide accurate business process information (col. 9, lines 62-68).

Therefore Roach does disclose every element of the claimed invention. Examiner is therefore maintaining the 35 USC § 103(a) rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in the Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BOB CHUMPITAZ whose telephone number is (571) 270-5494. The examiner can normally be reached on M-TR: 7:30AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN WEISS can be reached on (571) 272-6812. The fax phone number for the organization where this application or proceeding is assigned is 571-270-6494.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

B. C.
Examiner, Art Unit 3629

/Jonathan Ouellette/
Primary Examiner, Art Unit 3629

